



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,698	04/13/2004	Hiroshi Atarashi	914-184	2924

23117 7590 07/27/2006

NIXON & VANDERHYE, PC  
901 NORTH GLEBE ROAD, 11TH FLOOR  
ARLINGTON, VA 22203

EXAMINER

NGUYEN, SIMON

ART UNIT	PAPER NUMBER
----------	--------------

2618

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/822,698		ATARASHI, HIROSHI	
	<b>Examiner</b>		<b>Art Unit</b>	
	SIMON D. NGUYEN		2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 and 7 is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Davis et al. (6,600,730).

Regarding claims 5-6, Davis discloses a LNB converter (fig.8), comprising: a switching circuit having a plurality of input terminals (from satellites 105a,b, 104) and a plurality of output terminals, receiving polarization signals from each of satellites and outputting polarization signals (342, 344, 346) a converter (F-CONV) for converting frequency bands of polarization signals into IF bands; and a signal coupler (summer) for performing frequency multiplexing of the polarization signals to generate a combined signal.(fig.8, column 6 lines 15-67).

3. Claims 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Dent (20040259497).

Regarding claims 5-6, Dent discloses a LNB for receiving signals from satellites (abstract, figs. 7, 9), comprising: a switching circuit (131 of fig.7) having a plurality of input terminals (from satellites 1, 2) and a plurality of output terminals (RHC, LHC), receiving polarization signals from each of satellites and outputting polarization signals; a converter (134a-b or 222) for converting frequency bands of polarization signals into IF bands; and a signal coupler (demultiplexer) for performing frequency multiplexing of the polarization signals to generate a combined signal.(paragraphs 54-57, 63-67).

4. Claim 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura et al. (6,832,071).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 5-6, Nakamura discloses a LNB for receiving signals from satellites (abstract, figs. 3, 4-7), comprising: a switching circuit (8 of fig.4) having a plurality of input terminals (from satellites 1, 2) and a plurality of output terminals (RHC, LHC), receiving polarization signals from each of satellites and outputting polarization signals; a converter (30 A-D) for converting frequency bands of polarization signals into IF bands; and a signal coupler (32A) for performing frequency multiplexing of the

Art Unit: 2618

polarization signals to generate a combined signal.(column 6 lines 29-67, column 9 lines 25-55, column 11 lines 9-63).

***Allowable Subject Matter***

5. Claims 1-4, 7 are allowed.

Regarding claims 1 and 7, the prior art of record fails to teach or suggest a second combined signal, in which a signal rearranging circuit selecting any M first combined signals from N of first combined signals allowing duplicate selection, taking out any one polarization signal from each of selected first combined signals and performing frequency multiplexing to the taken out M polarization signals to generate the second combined signal.

Regarding claims 2-4, these claims are allowed as being dependent upon independent claim that has been allowed.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (571) 272-7894. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (571) 272-7899.

Art Unit: 2618

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

600 Dulany, Alexandria, VA 22314

Or faxed to:

(571) 273-8300 (for formal communications intended for entry)

Hand-delivered response should be brought to Customer Service Window located at the Randolph Building, 401 Dulany, Alexandria, VA, 22314.

Simon Nguyen

July 17, 2006

A handwritten signature in black ink, appearing to read 'S. Nguyen'.

**SIMON NGUYEN  
PRIMARY EXAMINER**